UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/657,426	09/08/2003	Adam J. Ferrari	0109878.00132US1	9037

23483 7590 09/23/2008

WILMERHALE/BOSTON
60 STATE STREET
BOSTON, MA 02109

EXAMINER	
LU, CHARLES EDWARD	

ART UNIT	PAPER NUMBER
2161	

NOTIFICATION DATE	DELIVERY MODE
09/23/2008	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

michael.mathewson@wilmerhale.com
teresa.carvalho@wilmerhale.com
sharon.matthews@wilmerhale.com

Office Action Summary	Application No.	Applicant(s)	
	10/657,426	FERRARI ET AL.	
	Examiner	Art Unit	
	CHARLES E. LU	2161	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *08 August 2008*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *2-10,13-15,18,20-28,31-33,36 and 41-46* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *2-10,13-15,18,20-28,31-33,36 and 41-46* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

1. This Action is in response to the amendment dated 8/8/2008. Claims 2-10, 13-15, 18, 20-28, 31-33, 36, and 41-46 are pending and rejected.

Response to Amendments/Response to Arguments

2. The objection to the specification is withdrawn in view of the amendments and remarks.

3. The objection to the claims is withdrawn in view of the amendments to the claims.

4. The 35 USC 101 rejection of the claims is withdrawn in view of the amendment to the claims.

5. The 35 USC 112, second paragraph rejection of the claims is withdrawn in view of the remarks.

6. Applicant's remarks concerning the prior art-based rejections were fully considered. First, it is noted that the remarks on p. 18, paragraphs 1-2 were considered, but it appears that Applicant is discussing a previously withdrawn grounds of rejection. The remainder of Applicant's arguments is deemed persuasive. Applicant has argued the claims as amended, and the new grounds of rejection presented below are necessitated by the amended claims. The prior grounds of prior-art based rejection are withdrawn.

The amendments change the scope of the invention, and the examiner did not erroneously interpret the previous claims. Before the amendment, the score for a

multiple term interpretation could be understood to be based on any other database. The claims as amended now require that the score be based on the quantity of items in the database being searched.

Claim Rejections - 35 USC § 103

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

7. Claims 41, 43, 45, 2-10, and 20-28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Schabes et al (U.S. Patent 6,424,983), hereinafter "Schabes," in view of Woods (U.S. Patent 5,724,571), hereinafter "Woods," further in view of Pollitt et al. ("View-based searching systems – progress towards effective disintermediation"), hereinafter "Pollitt."

As to claims 41 and 2-5, Schabes teaches a method of interpreting a multiple term query (fig. 23, #S2301) formed of at least a first query term and a second query term (col. 10, ll. 56-59) to retrieve items from a database ("source," fig. 23, #S2304), comprising:

Identifying at least one candidate single-term interpretation associated with the first query term (alternate spelling) and

Identifying at least one candidate single-term interpretation for the second query term (see treatment of "misspelled words," col. 10, ll. 56-58);

Identifying a plurality of candidate multiple-term interpretations (e.g., sentences, fig. 16), each candidate multiple-term interpretation formed from a plurality of the

candidate single term interpretations (note in fig. 16, each sentence interpretation is constructed by combining single terms to form a complete path through the FSM, note also fig. 14, col. 19, ll. 1-12 to understand construction of the FSM, a path through first and second single term interpretations meets the limitation of a first candidate multiple term interpretation). Note that the above is used in a query environment (e.g., col. 24, ll. 10-20).

Schabes does not expressly teach:

a) providing a plurality of semantic approaches for associating a candidate multiple term interpretation with items in the database being searched,

a1) the semantic approaches includes treating a candidate multiple term interpretation as a conjunction, disjunction, or using a martial match approach.

b) determining a quantity of database items associated with each respective candidate multiple term interpretation according to each of said semantic approaches,

c) determining a contextual score for each candidate multiple term interpretation based at least in part on the quantity of items associated with each respective candidate multiple term interpretation in the database being searched,

d) selecting at least one candidate multiple term interpretation based on its score, and

e) retrieving at least one item from the database being searched using the selected candidate multiple term interpretation.

However, Woods discloses or suggests limitation a) as seen in fig. 1, #70, fig. 4 and 5A. Also see col. 6, ll. 8-12.

Furthermore, Pollitt discloses the "determining a quantity of items associated with respective candidate multiple term interpretations" of limitation b), as seen in the figures. Pollitt thus teaches or suggests the contextual score (limitation c) based on a quantity of database items associated with the multiple term interpretation. Pollitt further teaches or suggests selecting a candidate multiple term interpretation based on its score (see figures, especially, fig. 7-8) and retrieves items from the database using the selected multiple term interpretation (e.g., fig. 8) (limitations d and e).

As to limitation (a1), Woods further teaches wherein determining a contextual score includes treating the candidate multiple-term interpretations as a conjunction and/or a disjunction, and considering partial matches of the candidate multiple-term interpretations (regarding limitations "b" and "d" above). If all words are not matched in the hit document, a penalty will result (col. 6, ll. 59-62). Thus, if no penalty occurs, all words are matched and the query is treated as a conjunction. If a penalty is assigned to the hit document for matching some, but not all words (col. 6, l. 60), the query is treated as a disjunction. If a penalty is assigned for a missing word(s), a partial match of the query is considered. Thus, a conjunctive, disjunctive, and partial match approach are all implemented.

Therefore, it would have been obvious to one of ordinary skill in the art at the time of Applicant's invention to modify the method of Schabes, such that the multiple term interpretation queries are subjected to Pollitt's scoring and Woods' semantic interpretation during search and retrieval. Therefore, the claimed subject matter would be met. The motivation to one of ordinary skill in the art would have been to increase

search intelligence (Woods, col. 1, ll. 38-50) and to suggest other relevant multiple term interpretations (e.g., Pollitt, Abstract).

As to claim 6, claim 7, and claim 8, Woods, as applied above, further teaches wherein for the first candidate multiple term interpretation the contextual score incorporates information about the particular semantic approach that is used for the set of associated items (e.g., see the various scoring that is executed in fig. 4-5A), the incorporating including using a measure of a number of terms in the first candidate multiple term interpretation that are in the set of associated items (e.g., see proximity measures, col. 6, ll. 16-23). Proximity ranking is a dominant factor in determining the contextual score, as seen in Woods (col. 6, l. 16, fig. 4, #470, fig. 5A).

As to claim 9, Schabes as applied above further teaches identifying a third candidate single term interpretation corresponding to the first query term, and a fourth candidate single term interpretation associated with the second query term (see above discussion on alternatives to misspelled words), identifying a second candidate multiple term interpretation (see FSM paths as discussed above), wherein the second candidate multiple term interpretation is a combination of third and fourth candidate single term interpretations (again, see discussion above on a path through the FSM containing desired spelling alternatives)

Schabes does not expressly teach identifying a second set of associated items associated with the second candidate multiple term interpretation according to a second particular semantic approach, and determining a second contextual score for the

second multiple term interpretation from the second set of items, the first and second semantic approaches being different.

However, the combination with Woods and Pollitt, as discussed above, teaches a first set of associated terms, a first semantic approach, and a first contextual score for a first multiple term interpretation.

Additionally, Schabes teaches that in an information retrieval system, for multiple queries, each query (see discussion on multiple tem interpretation) is corrected by the method described above and then each corrected query is used to retrieve information from the database (col. 25, ll. 39-52). Meanwhile, Woods and Pollitt disclose given an input query, implementing a semantic approach and using contextual scoring, as discussed above.

Furthermore, Woods teaches or suggests a second, different semantic approach, because the performance of the procedures can occur in many different orders, and that any particular order is not required (col. 6, ll. 8-13).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Schabes, Woods, and Pollitt, such that in an information retrieval system, the first and second multiple term query interpretations are processed using first and second different semantic approaches to produce respective sets of associated items, thus accomplishing the claimed invention. The motivation would have been to adapt to the user's requirements for programming, testing, or to provide any performance enhancement by performing procedures in a different order, as known to one of ordinary skill in the art.

As to claim 10, Schabes as applied above teaches selecting a first semantic approach and determining a first set of associated items associated with the first multiple term interpretation according to the first approach, as discussed above. Schabes/Woods/Pollitt as applied above also teach using the first set of associated items in the database (e.g., the returned hits) to derive a first score for the interpretation. Also see above.

Schabes does not expressly teach selecting a second semantic approach and determining a second set of items associated with the first multiple term interpretation according to the second approach, and selecting between first and second sets of items to identify the set for determining the contextual score for the first multiple term interpretation.

However, Woods, as discussed above, teaches a first set of associated terms, a first semantic approach, and a first derived score for a first multiple term interpretation.

Additionally, Schabes teaches that in an information retrieval system, for multiple queries, each query (see discussion on multiple tem interpretation) is corrected by the method described above and then each corrected query is used to retrieve information from the database (col. 25, ll. 39-52). Meanwhile, Woods discloses given an input query, implementing a semantic approach to find and rank hits to the query, as discussed above.

Furthermore, Woods teaches or suggests a second, different semantic approach, because the performance of the procedures can occur in many different orders, and that any particular order is not required (col. 6, ll. 8-13).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Schabes, Woods, and Pollitt, such that a first or second of the semantic approaches, and the corresponding first or second result sets, is selected for determining the contextual score for the first candidate multiple term interpretation. Therefore, the claimed subject matter would be met. The motivation, also as previously stated, would also have been to adapt to the user's requirements for programming, testing, or to provide any performance enhancement by performing procedures in a different order, as known to one of ordinary skill in the art.

Claims 45 and 20-28 are rejected under the same basis as claims 41 and 2-10, discussed in detail above.

As to claim 43, Schabes teaches the following claimed subject matter:

"Identifying…first query term" (see above);

"Identifying… second query term" (see above);

"Determining a context independent score" (see above);

"Identifying a plurality of candidate multiple term interpretations" (see above);

Determining a combined context independent score for each candidate multiple-term interpretation based on the context independent scores of the single term interpretations (weight for an alternative spelling and sum of all the weighted words, col. 22, ll. 13-15, also see above discussion);

Schabes does not expressly teach:

a) providing a plurality of semantic approaches for associating a candidate multiple term interpretation with items in a database,

b) determining a quantity of database items associated with each respective candidate multiple term interpretation according to each of said semantic approaches,

c) determining a contextual score for each candidate multiple term interpretation based at least in part on a quantity of items associated with each respective candidate multiple term interpretation in the database being searched,

c1) determining an "overall score" for each candidate multiple term interpretation based on the contextual and combined context independent score,

d) selecting at least one candidate multiple term interpretation based on its overall score, and

e) retrieving at least one item from the database being searched using the selected candidate multiple term interpretation.

However, Woods discloses or suggests limitation a) as seen above.

Pollitt discloses the "determining a quantity of items associated with respective candidate multiple term interpretations" of limitation b), as seen above. See above for the discussion of limitations (c) – (e).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of Applicant's invention to modify Schabes, such that the multiple term interpretation queries are subjected to Pollitt's scoring and Woods' semantic interpretation during search and retrieval (see a, b, c, d, e above). Therefore, the claimed subject matter (i.e., a, b, c, d, e) would be implemented. The motivation to one of ordinary skill in the art would have been to increase search intelligence (Woods, col. 1, ll. 38-50) and to suggest relevant multiple term interpretations (e.g., Pollitt, Abstract).

Schabes, Woods, and Pollitt as applied above do not expressly teach the claimed overall score (c1).

However, as to the "overall score," Schabes discloses determining an "overall score" by combining separate scores. In col. 20, ll. 24-34, the weights of input FSM represent the first score, and the weights of grammar FSM represent the second score. The two weights are combined using the weights application module to form an overall score (fig. 13, #135 and figs. 17-18).

It would have been obvious to one of ordinary skill in the art at the time of Applicant's invention to modify the method of Schabes to additionally produce the claimed overall score. The motivation would have been to take into account the other scored factors described above, to produce a more effective score based on the several factors, as known to one of ordinary skill in the art.

8. Claims 42, 44, 46, 13-15, 18, 31-33 and 36 are rejected under 35 U.S.C. 103(a) as being unpatentable over Schabes, in view of Lizee et al (U.S. Patent 5,671,404), hereinafter "Lizee," in view of Pollitt.

As to claim 42, Schabes teaches a method of interpreting a multiple term query (fig. 23, #S2301) formed of at least a first term and a second term (col. 10, ll. 56-59) to retrieve items from a database ("source," fig. 23, #S2304), comprising:

Identifying at least a first candidate single-term interpretation and a second candidate single term interpretation associated with the first query term, and a third candidate single term interpretation associated with the second query term (see above discussion on spelling corrections of Schabes);

Schabes teaches the identifying step; "identifying…the third candidate single term interpretation" (see the above discussion on the paths of Schabes).

Schabes does not expressly teach the pruning limitation, "pruning…second candidate single term interpretation."

However, Lizee teaches the pruning limitation. See e.g., fig. 2.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Schabes, such that additionally, single term interpretations are pruned when they correspond to insufficient items in the database. The motivation would have been to achieve greater speed, and to minimize interaction between database and user, as taught by Lizee (Abstract, col. 2, ll. 50-57).

Schabes and Lizee as applied above would further teach "identifying candidate multiple term interpretations" (see above discussion).

Schabes and Lizee do not expressly teach:

c) determining a contextual score for each candidate multiple term interpretation based at least in part on a quantity of items associated with each respective candidate multiple term interpretation in the database being searched,

d) selecting at least one candidate multiple term interpretation based on its overall score, and

e) retrieving at least one item from the database being searched using the selected candidate multiple term interpretation.

However, Pollitt teaches or suggests limitations (c) – (e) as discussed above.

Therefore, it would have been obvious to one of ordinary skill in the art at the time of Applicant's invention to modify Schabes and Lizee, such that the multiple term interpretation queries are subjected to the Pollitt's scoring in search and retrieval. Therefore, the claimed subject matter would be met. The motivation to one of ordinary skill in the art would have been to increase search intelligence and to suggest relevant multiple term interpretations to the user (e.g., Pollitt, Abstract).

As to claim 13, Lizee as applied above, further teaches wherein pruning includes generating a query identifying a reduced set of all the items in the database associated with the first candidate single term interpretation, and evaluating an intersection query for each of a first, second, and third candidate single term interpretations to identify a set of associated items for each of the first, second, and third single term interpretations (e.g., fig. 2, see query C1, and Query C1 & C3 & C4).

Schabes, Lizee, and Pollitt do not expressly teach evaluating the intersection query on a reduced set.

However, Lizee teaches producing a reduced set in Query C1 of fig. 2, as C1 itself produces 150 objects from the database. Lizee suggests that subsequent intersection queries consisting of first, second, and third terms such as C1 & C3 & C4 of fig. 2 can be evaluated against the reduced set of 150 objects obtained through condition C1, because C1 & C3 & C4 at most will return the 150 items from C1.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to further modify Schabes, Lizee, and Pollitt such that subsequent intersection queries of fig. 2 which correspond to a first, second, and third

term, are tested against a previous satisfactory result set (e.g., 150 objects of C1), thereby evaluating the intersection query with the reduced set as claimed. The motivation, as known to one of ordinary skill in the art, would have been to save processing time and increase performance since re-querying the entire database would be more time consuming. It should be noted that Lizee is drawn towards providing faster searches (e.g., Abstract) and this modification would further enhance Lizee's performance.

Schabes, Lizee, and Pollitt do not expressly teach wherein the database includes at least one item not associated with any of the first, second, or third single term interpretations.

However, Lizee teaches that the database is queried for objects satisfying a query condition, and if objects are not found, taking appropriate actions (fig. 1A, #130). Lizee also discloses a database with at least 150 objects (fig. 2). Therefore, Lizee teaches or suggests that if the first condition returns no items, appropriate actions will be taken (fig. 1A). As such, there can be at least one item in the database not associated with the first single term interpretation, as claimed, because no items would be returned when the database is queried with the first condition.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to further modify Schabes, Lizee, and Pollitt such that the database contains at least one item not associated with the first single term interpretation. The motivation, as known to one of ordinary skill in the art, would have been to provide a more realistic database, especially for testing, because in actual use it

is highly possible that the first term to be tested contains no associated items in the database.

As to claim 14, Lizee as applied above teaches a threshold of 1 (see fig. 2).

Claim 15 is rejected on the same basis as claim 13.

As to claim 18, Schabes as applied above teaches, "determining a first score...other than the second query term" (e.g., see fig. 16). Schabes further teaches wherein pruning includes using the first, second, and third scores for selecting candidate single term interpretations to prune (note that in the replacement procedure of fig. 3 and 13, a word, or single term interpretation, is replaced by the best alternative word, hence pruning uses the first, second, and third scores).

Claims 46, 31-33, and 36 are rejected on the same basis as claims 42, 13-15, and 18, discussed in detail above.

As to claim 44, Schabes teaches "identifying a first candidate...first query term, identifying...third candidate...second query term, determining a context independent score...single term interpretation, identifying a plurality of candidate multiple term interpretations...single term interpretation, determining a combined context-independent score...multiple term interpretation" (see above).

Schabes does not expressly teach:

c) determining a contextual score for each candidate multiple term interpretation based at least in part on a quantity of items associated with each respective candidate multiple term interpretation in the database being searched,

c1) determining an "overall score" for each candidate multiple term interpretation based on the contextual and combined context independent score,

d) selecting at least one candidate multiple term interpretation based on its overall score, and

e) retrieving at least one item from the database being searched using the selected candidate multiple term interpretation.

However, Pollitt teaches or suggests limitations (c) – (e) as discussed above.

Therefore, it would have been obvious to one of ordinary skill in the art at the time of Applicant's invention to modify Schabes, such that the multiple term interpretation queries are subjected to Pollitt's scoring during search and retrieval. Therefore, the claimed subject matter would be met. The motivation to one of ordinary skill in the art would have been to suggest relevant multiple term interpretations to the user (e.g., Pollitt, Abstract).

Schabes and Pollitt as applied above do not expressly teach the claimed overall score (c1).

However, as to the "overall score," Schabes discloses determining an "overall score" by combining separate scores. In col. 20, ll. 24-34, the weights of input FSM represent the first score, and the weights of grammar FSM represent the second score. The two weights are combined using the weights application module to form an overall score (fig. 13, #135 and figs. 17-18).

It would have been obvious to one of ordinary skill in the art at the time of Applicant's invention to modify the method of Schabes to additionally produce the

claimed overall score. The motivation would have been to take into account the other scored factors described above, to produce a more effective score based on the several factors, as known to one of ordinary skill in the art.

Schabes and Pollitt as applied above do not expressly teach the pruning limitation, "pruning...second candidate single term interpretation."

However, Lizee teaches the pruning limitation. See e.g., fig. 2.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Schabes and Pollitt, such that additionally, single term interpretations are pruned when they correspond to insufficient items in the database. The motivation would have been to achieve greater speed, and to minimize interaction between database and user, as taught by Lizee (Abstract, col. 2, ll. 50-57).

Conclusion

Applicant's amendment necessitates new grounds of rejection. Accordingly, **THIS ACTION IS MADE FINAL.** See MPEP 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Charles E. Lu whose telephone number is (571) 272-8594. The examiner can normally be reached on 8:30 - 5:00; M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Apu Mofiz can be reached at (571) 272-4080. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/Charles E Lu/
Examiner, Art Unit 2161
9/19/2008

/Apu M Mofiz/
Supervisory Patent Examiner, Art Unit 2161